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The prophylactic effect of Nigella Sativa against cyclophosphamide in the ovarian follicles of matured adult mice: A preliminary study

(Article)

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Abstract

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This study aims to assess follicle preservation in mature female mice with the provision of Nigella Sativa oil against effects of cyclophosphamide which can cause ovarian follicular loss. Forty-eight ICR mice aged 18 weeks were divided into 3 groups: group I = control, group II = cyclophosphamide-alone (50mg/kg) for 5, 10, 15 and 20 days; and group III = pre-treated with different doses of Nigella sativa oil (0.2ml, 0.5ml and 1.0ml/100g) for 5 days, all by intraperitoneal injection. The histology and the total number of ovarian follicles were studied. Results show that the number of primordial follicles following exposure to cyclophosphamide was significantly reduced (36.33 ± 5.86) as compared to the controls (86.67 ± 32.52) at day 10 ($p < 0.05$). There was also a significant reduction in the mean number of normal primary and secondary follicles ($p < 0.001$), mean ovarian diameters ($p < 0.05$) and an increased vacuolation with irregular distribution of granulosa cells. The numbers of normal primary and secondary follicles including ovarian diameters were significantly increased in the use of Nigella sativa as opposed to effects seen in controls and cyclophosphamide-alone groups at day 5. This study seems to suggest a prophylactic property of Nigella sativa in the reproductive system of female mice.

Author keywords

[Cyclophosphamide](#)
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[Ovarian follicles](#)

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